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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,086	03/11/2004	Atsushi Kitamura	119065	4354
25944	7590	03/21/2006	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			REHM, ADAM C	
			ART UNIT	PAPER NUMBER
			2875	
DATE MAILED: 03/21/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/797,086

Applicant(s)

KITAMURA, ATSUSHI

Examiner

Adam C. Rehm

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                                                |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                           | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/10/2004</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

- The "object to be illuminated" per Claim 1, Line 6.
- A "light controlling means having a refractive index...parallel and vertical to the light exit surface of the light conductive plate" per Claim 1, Lines 9-10.

2. Figures 10A-13 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 6-12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by AKOAKA (US 6,540,368), which discloses a spread illuminating apparatus (1) comprising:

- At least one light source (4);
- A light conductive plate which has at least one light source disposed toward one end surface thereof so as to introduce light emitted from the light source thereinto (2, Fig. 1), and which allows the light to exit out from a light exit surface thereof toward an object to be illuminated (Fig. 2);
- A light controlling means disposed between the at least one light source and the light conductive plate (3) and defining light entrance and exit surfaces and a refractive index profile formed in a direction parallel/vertical to the light exit surface of the plate (Figs. 1 and 2);
- Wherein the light control means is structured such that a refractive index variation appears repeatedly in the direction parallel to and the light exit

surface of the light conductive plate/defines a smoothly curved envelope (3, Fig. 2);

- Wherein the light control means has a height equal to one end surface of the plate (Fig. 1);
- Wherein the light exit surface is parallel to a light entrance surface (Fig. 1);
- Wherein the light source is located at a center of the light entrance (Fig. 1).
- Wherein the light control means consists of a plurality of adhesively-stacked, transparent, rectangular solids (Fig. 3C).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over AKOAKA (US 6,540,368). AKOAKA discloses the claimed invention including light control means structured such that a refractive index variation appears repeatedly in the direction parallel to and the light exit surface of the light conductive plate (3, Fig. 2), but does not specifically disclose a plurality of arrangements for manipulating a light index, i.e. a refractive index profile with an index that:

(1) Decreases with an increase in distance with respect to directions:

(A) Parallel and vertical per Claim 2;

(B) Vertical per Claims 3 and 5;

(C) Parallel per Claim 4; or

(2) Increases with an increase in distance with respect to directions:

(A) Parallel per Claim 3;

(B) Vertical per Claim 4.

5. However, it has been held that the mere rearrangement of the existing parts of a device involves only routine skill in the art and is, therefore, obvious. *In re Japiske*, 86 USPQ 70. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange the parts of AKOAKA in order to provide varying configurations for accommodating a plurality of applications. Moreover, Applicant has not disclosed that rearranging the existing parts of AKOAKA solves any stated problems or is for any particular purpose and it appears that the invention would perform equally well with the disclosed arrangement of AKOAKA.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over AKOAKA (US 6,540,368). AKOAKA discloses the claimed invention including a light control means (3) and a light conductive plate (2), but does not specifically disclose the manner of attachment, i.e. a transparent adhesive. It is notoriously known in the art to attach multi-piece light guides with a transparent

***Allowable Subject Matter***

7. Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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8. The following is a statement of reasons for the indication of allowable subject matter: no prior art of record discloses or otherwise suggests a spread illuminating apparatus with light control means as claimed having a plurality of transparent rectangular solids stacked one over the another wherein the adhesive to put together two adjacent rectangular solids has a refractive index which is at least equal to a refractive index of one of the two adjacent rectangular solids having a smaller refractive index and which is at most equal to the other one thereof having a larger refractive index.

#### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. KUNIMUCHI ET AL. (US 2003/0117792) discloses a guide and light control means.

#### ***Correspondence***

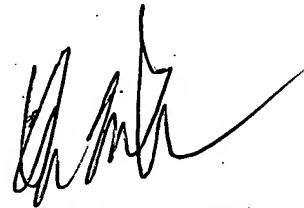
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam C. Rehm whose telephone number is 571.272.8589. The examiner can normally be reached on M-F 9-5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571.272.2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ACR  
3/18/2006



**THOMAS M. SEMBER**  
**PRIMARY EXAMINER**